· · · STN Columbus · ·

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SINCE FILE ENTRY . 0.21 TOTAL SESSION 0.21

FULL ESTIMATED COST

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, AQUALINE, ANABSTR, ANTE,
AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHABS,
BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
CROPU, DISSABS, DDFB, DDFU, DGENE, ...' ENTERED AT 23:31:44 ON 03 SEP

74 FILES IN THE FILE LIST IN STNINDEX

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s soluble (w) silk (w) protein 2 FILE BIOTECHABS 36 FILES SEARCHED... FILE GENBANK
FILE IFIPAT
FILE JICST-EPLUS
FILE USPATFULL
FILE WPIDS
FILE WPIDS FILE DISSABS FILE CAPLUS FILE CEABA-VTB FILE BIOTECHDS FILE CIN

13 FILES HAVE ONE OR MORE ANSWERS, 74 FILES SEARCHED IN STNINDEX

QUE SOLUBLE (W) SILK (W) PROTEIN

GENBANK IFIPAT JICST-EPLUS BIOTECHABS BIOTECHDS CIZ DISSABS WPINDEX WPIDS CEABA-VTB CAPLUS USPATFULL

> => file hits COST IN U.S. DOLLARS FULL ESTIMATED COST SINCE FILE ENTRY 1.14 TOTAL SESSION 1.35

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28 DUP REM L2 (5 DUPLICATES REMOVED)

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PROCESSING COMPLETED FOR LB -> s 15 and (skin or hair)
11 L5 AND (SKIN OR HAIR) DUPLICATE IS NOT AVAILABLE IN 'GENBANK'.
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d 19 bib ab 1-11

67

ANSWER 3 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN

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IN.CAT 1383

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for purifying and recovering silk proteins in water-soluble form is described. The method is based upon precipitation of the silk protein at a temperature below room temperature, which results in a protein pellet that rediscolves in water without the addition of harsh chemicals. When the precipitation is done at room temperature, the resulting protein pellet cannot be redissolved in water. Applications resulting protein belief cannot be redissolved in water. Applications
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                                                                                                                                                                                                                                                                                                                               APPLICATION
POTTER ANDERSON & CORROON LLP, ATTN: KATHLEEN W. GEIGER, ESQ., P.O. BOX 951, WILMINGTON, DE, 19899-0951
Number of Claims: 20
Exemplary Claim: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schultz, Thomas M., Randolph, NJ, UNITED STATES US 2004132978 AI 20040708 US 2003-704337 AI 20031107 (10) US 2002-425617P 20021112 (60)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ***Skin*** care, ***hair*** care and ***hair*** coloring compositions comprising a water ***soluble*** ***silk****

***protein*** as an active ingredient are described. The water-
****soluble*** ***silk*** ***protein*** deposits onto the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ***hair*** care or ***hair*** coloring
Fahnestock, Stephen R., Wilmington, DE, UNITED STATES
Schultz, Thomas M., Randolph, NJ, UNITED STATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Water-soluble silk proteins in compositions for ***hair*** care or ***hair*** coloring
                                                                                                                                                                                                                                                                                                      No Drawings
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***hair*** care, ***hair*** coloring products, coating and wound healing bandages are described.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fahnestock, Stephen R., Wilmington, DE, UNITED STATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 aerosols, gels, mousses, dyes, or bleaches.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and durable film to provide added strength for protection against
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                                 for the water-soluble silk proteins in cosmetics, ***hair*** care, ***hair*** coloring prod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   uses thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Method for purifying and recovering silk proteins in soluble form and
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                                                                                                                                                                                                                                                             ***Skin*** care, ***hair*** care and ***hair***
compositions comprising a water- ***soluble***

****protein*** as an active ingredient are described.

****soluble*** ***silk*** ****protein*** deposi
                                                                                                                                                                                                   environmental, chemical, and grooming associated damage. The compositions may be in the form of ***skin*** care, ***skin*** cleansing, or anti-wrinkle products, shampoos, conditioners, lotions, aerosols, gels,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PATENT NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fahnestock, Stephen R.; Schultz, Thomas M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Water-soluble silk proteins in compositions for ***hair*** care or ***hair*** coloring
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                                                                                                                                                                                                                                  durable film to provide added strength for protection against
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                                                       DJ PONT DE NEMOURS and CO E I

WO 2004044172 27 May 2004

WO 2003-US5161 12 Nov 2003

US 2002-425617 12 Nov 2002; US 2002-425617 12 Nov 2002
                                                                                                                                   Purifying and recovering recombinant silk proteins in water-soluble form, useful in the production of cosmetics, ***skin*** care and ***hair*** care compositions, and/or pigment coating and wound healing
                           English WPI: 2004-420314 [39]
                                                                                             dermatological disorders FAHNESTOCK S R; SCHULTZ T M
                                                                                                                         bandages;
                                                                                                                                                                ANSWER 4 OF 11 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN 2004-15645 BIOTECHDS
       DERWENT ABSTRACT:
NOVELTY - Purification of water- ***soluble***
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                                                                                                                  ***cosmetic***
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to an acidic pH, heating the adjusted sample to at least 55degreesC, removing cell debris from the extract, lowering the temperature of the heated extract to below 20degreesC, adding a precipitating agent to the cooled extract to allow silk protein to precipitate, where the precipitated silk protein may be redissolved in an aqueous solution; and (2) a ""cosmetic" composition, ""skin" care composition, or cell containing water ***soluble*** ***silk*** ***protein*** comprising providing a sample having silk protein, a portion of which is water soluble, disrupting the host cell to release the silk protein and produce a crude silk extract, adjusting the pH of the crude silk extract the heated sample to below 20 degreesC, adding a precipitating agent to the cooled sample to below 20 degreesC, adding a precipitating agent to the cooled sample to allow silk protein to precipitate, where the precipitated silk protein may be redissolved in an equeous solution. The at least a portion of the silk protein in the method cited above is water-soluble. INDEPRINDENT CLAIMS are also included for: (1) purification of water- ***soluble**** sample having silk protein in the presence of contaminating proteins, adjusting its pH to an acidic pH, heating the adjusted sample to at least 55 degreesC, removing debris from the sample location. above. DETAILED DESCRIPTION - Pur ***Silk*** ***hair*** care composition comprising a water ***protein*** purified by any of ***protein*** Purification of water- ***soluble*** purified by any of the methods cited from a sample containing water***protein*** comprises pro is new. ***silk*** comprises providing a care composition, õ

flocculation or settling over time. The host cell is prokaryotic cells, yeasts, fungi, algae, green plants, and mammalian cells. The host cell is disrupted mechanically by a means selected from the group consisting of sonication, irradiation, homogenation, pressing or freeze thawing. The silk protein is dragline spider silk proteins Spideroin 1 and Spidroin 2, spider silk proteins originating from the minor ampullate gland of Nephila clavipes, and spider silk proteins originating from the flagelliform gland of Nephila clavipes, and their variants. The spider silk dragline protein is defined by formula 1; where, formula 1 (Ala Gly Gln Gly Gly Tr Gly Gly Leu Gly X Gln Gly Ala Gly Arg Gly Gly Leu Gly Eu Gly X Gln Gly Ala Gly Arg Gly Gly Leu Gly Cln Gly Ala Gl water-miscible organic solvents, and water-soluble organic polymers. The cell debris is optionally removed after the second and third steps. The removal of cell debris is accomplished by centrifugation, filtration, BIOTECHNOLOGY - Preferred Method: The pH in any of the purification methods is adjusted to pH of 3.0-6.0. The heating of the adjusted extract is to a temperature of about 55-100 degreesC. The temperature is lowered to 0-10 degreesC. The precipitating agent is inorganic saits, deleted, the first repeat is preceded by a second repeat where n=6; and wherein the full-length protein is encoded by a gene or genes and wherein said gene or genes are not endogenous to the Nephila clavines genome. The will encompass integral multiples of three consocutive residues; (c) the deletion of Gly Tyr Gly in any repeat is accompanied by deletion of Gly spider dragline protein has a repeating unit having a fully defined amino acid sequence of 101 or 109 amino acids (SEQ ID NO: 1-4) as given in the Arg Gly in the same repeat; and (d) where a first repeat where n = 0 is deletions other than the poly-alanine sequence, limited by the value of n

from a sample containing water-

specification.

purifying and recovering recombinant silk proteins in water-soluble form, useful in the production of cosmetics, ''skin'' care and ACTIVITY - Dermatological; Vulnerary. No biological data given. USE - The methods and compositions of the present invention of

...hair... care compositions, and/or pigment coating and wound healing

in 2xYT, 28 glucose and 50 mg/Leu kanamycin. The pH was maintained at 6.8 by addition of 40% NH40H or 20% His3D04. Dissolved 02 was maintained at 25%. After 3 hours, the cells were harvested by centrifugation in a GS-3 type rotor in a Sorval Model RC5C refrigerated centrifuge and the cell paste was stored frozen at -20degreesC for at least 24 hours before proceeding with purification process. The cell paste was thawed and resuspended in 420 mL of lysis buffer. Lysozyme was deded to the cell suppension to a concentration of 300 microy/ml and the solution was incubated at 4 degreesC for 1 hour. Then, the suspension was quick-frozen in a dry ice-ethanol bath and thawed in a 37 degreesC bath. The resulting soluble form using a purification method that uses ammonium sulfate fractionation at low temperature. E. coli strain FP3276 was cultured with minor modifications, where strain FP3276 was grown at 36degreesC in a BioLafitte fermenter in 10 L of a medium as given in the specification. The fermenter was incoulated with 500 mL of overnight culture of FP3276 was a local action of the column of the culture of FP3276 where the column of the culture of FP3276 was a local action of the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where the culture of FP3276 where the culture of FP3276 was already and the culture of FP3276 where th supernatant was combined with the supernatant from the initial centrifugation. The pH of the cleared lysate was adjusted to pH 4.9 with acetic acid, and centrifuged at 14000 x g for I hour at 4 degreesC. A seturated ammonium sulfate solution was added to the supernatants in a volume ratio of 1-9. The resulting solutions were incubated on ice for 15 minutes, and then centrifuged at 14000 x g for 15 minutes at 4degreesC to collect the precipitated DP-2A spider silk analog protein. The resulting pellets were redissolved in water at 4degreesC using one-tenth the volume of the supernatant. The products were at least 95% pure DP-2A as demonstrated by analysis using the Protein Plus EXAMPLE - The recovery of spider silk analog protein DP-2A 200 LabChip protocol. (38

ANSWER 5 OF 11 USPATFULL on STN 2003:6663 USPATFULL

pages)

Z Z A G

Musil, David Charles, Appleton, WI, United States Rosch, III, Frank Andrew, Sherwood, WI, United States Shaw, Gordon Allen, Greenville, WI, United States Tyrrell, David John, Appleton, WI, United States Underhill, Diane Michele, Neenah, WI, United States Hockersmith, Jeffrey Michael, Mill Creek, WA, United States Gillberg-Laforce, Gunilla Elsa, Painted Post, NY, United States Gillberg-Laforce, Gunilla Elsa, Valued States May, Wade Bolton, New Orleans, LA, United States Faulks, Michael John, Neenah, WI, United States Krzysik, Duane Gerard, Appleton, WI, United States Wright, Audra Stefanik, Woodstock, GA, United States Yahiaoui, Ali, Roswell, GA, United States Gedsby, Elizabeth Deibler, Marietta, GA, United States Mayberry, Pamela Jean, Roswell, GA, United States Di Luccio, Robert Cosmo, Alpharetta, GA, United States Everhart, Dennis Stein, Alpharetta, GA, United States Paul, Susan Carol, Alpharetta, GA, United States Akin, Frank Jerrel, Marietta, GA, United States Menard, Karen Marie, Neenah, WI, United States Absorbent article which maintains or improves ***skin***

> PI US 6503525
>
> AI US 2000-671357
>
> RLI Division of Ser. No. US 1999-379431, f
> DT Utility
> FS GRANTED
> EXNAM Primary Examiner: Page, Thurman K.; As
> LREP Dudkowski, Alyssa A., Curtin, Jeffrey
> CLAN Number of Claims: 25
> ECL Exemplary Claim: 1
> DRWN 13 Drawing Figure(s); 11 Drawing Page
> LN.CNT 3217
> CAS INDEXING IS AVAILABLE FOR THIS PATENT. absorbent body and the backsheet and a surge management layer between the absorbent body and the topsheet. The article exhibits improved air exchange within the article during use. As a result, the article maintains the temperature and exhibits substantially reduced levels of hydration of the wearer's "**skin*** when in use which renders the "**skin*** less susceptible to the viability of microorganisms. The absorbent article may further include lotion formulations and/or treatment compositions thereon for maintaining or improving "**skin*** An absorbent article includes a vapor permeable backsheet, a liquid permeable topsheet positioned in facing relation with the backsheet; and an absorbent body located between the backsheet and the topsheet. The Exemplary Claim: 1
> 13 Drawing Figure(s); 11 Drawing Page(s) Dudkowski, Alyssa A., Curtin, Jeffrey B. Number of Claims: 25 absorbent body may include multiple zones of high air permeability. The absorbent article may also include a ventilation layer between the Division of Ser. No. US 1999-379431, filed corporation) Kimberly-Clark Worldwide, Inc., Neenah, Thurman K.; Assistant Examiner: Ghali, Isis 20000927 (9) WI, United States (U.S. on 23 Aug 1999 · · · gkin · · ·

ANSWER 6 OF 11 USPATFULL on 2002:340156 USPATFULL

1 A L9 Silk protein treatment composition and treated substrate for transfer to ***skin***

Tyrrell, David John, Appleton, WI, United States Gadsby, Elizabeth Deibler, Mariotta, Rinted States Gillberg-LaForce, Gunilla Elsa, Painted Post, NY, United States Kimberly-Clark Worldwide, Inc., Neenah, WI, United States (U.S. Everhart, Dennis Stein, Alpharetta, GA, United States Di Luccio, Robert Cosmo, Alpharetta, GA, United States Yahiaoui, Ali, Roswell, GA, United States May, Wade Bolton, Alexandria, LA, United Alexandria, LA, United States

PA Kimberly-Clark Worldwide, Inc., Neenah, corporation)
PI US 6497893 B1 20021224
AI US 1999-343861 19990630 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Page, Thurman K.; Ass
LREP Letson, William W., Moyles, Lisa J.
CLYN Number of Claims: 29
ECL Exemplary Claim: 1
DEWN 7 Drawling Figure(s); 7 Drawling Page(s)
LN.CNT 1021
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Primary Examiner: Page, Thurman K.; Assistant Examiner: Ghali, Letson, William W., Moyles, Lisa J.
Number of Claims: 29

Drawing Figure(s); 7 Drawing Page(s)

The present invention relates to a topical delivery system effective depositing a thin, tenacious and substantially continuous coating of silk protein on ***skin*** by an aqueous emulsion mediated dissolution of protein from a substrate with subsequent transfer and

against chemically- and biochemically-induced ***skin*** damage treatment composition also provides a vehicle for administering an effective dose of an active agent to the ***skin*** surface. deposition onto the resist removal, thereby providing a protective barrier resist removal, thereby providing a protective barrier allow-and biochemically-induced ***skin*** damage. The ***skin*** . Coatings of silk protein on

ANSWER 8 OF 11 USPATFULL on STN

All US 2...
All Division o.

RLI Division o.

RAMN Primary Examiner: Page d.

RAMN Page d. 1 1 2 5 6 2 1 8 5 ANSWER 7 OF 11 USPATFULL on STN Musil, David Charles, Appleton, WI, United States
Rosch, III, Frank Andrew, Sherwood, WI, United States
Shaw, Gordon Allen, Greenville, WI, United States
Tyrrell, David John, Appleton, WI, United States
Tyrrell, Daine Michele, Neenah, WI, United States
Hockersmith, Jeffrey Michael, Mill Creek, WA, United States
Gillberg-Laforce, Gunilla Elsa, Painted Post, NY, United States
Gillberg-Laforce, Gunilla Elsa, Painted Post, NY, United States
May, Wade Bolton, New Orleans, LA, United States ***skin*** less susceptible to the viability of microorganisms. The absorbent article may further include lotion formulations and/or treatment compositions thereon for maintaining or improving ***skin** Faulks, Michael John, Neenah, WI, United States Krzysik, Duene Gerard, Appleton, WI, United States Menard, Karen Marie, Neenah, WI, United States Everhett, Dennis Stein, Alpharetta, GA, United States Gadaby, Elizabeth Deibler, Marietta, GA, United States Mayberry, Pamela Jean, Roswell, GA, United States Wright, Audra Stefanik, Woodstock, GA, United States Paul, Susan Carol, Alpharetta, GA, United States Akin, Frank Jerrel, Marietta, GA, United States Di Luccio, Robert Cosmo, Alpharetta, GA, United States Kimberly-Clark Worldwide, Inc., Neenah, WI, United States (U.S. Yahiaoui, Ali, Roswell, GA, United States Absorbent article which maintains or improves USPATFULL ***skin***

> PI US 6316013 B1 20011113
>
> AI US 2000-671446 20000927 (9)
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> RLI Division of Ser. No. US 1999-379431, f
> DT Utility
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> FS GRANTED
>
> EXNAM Primary Examiner: Page, Thurman K.; As
>
> LREP Dudkowski, Alyssa
>
> CLMN Number of Claims: 18
>
> ECL Exemplary Claim: 1
>
> DRWN 13 Drawing Figure(s); 11 Drawing Page(...)
>
> LN.CNT 3240
>
> CAS INDEXING IS AVAILABLE FOR THIS PATENT.
>
> AB An absorbent article includes a vapor | 11 A 5 Paul, Susan Carol, Alpharetta, GA, United States Akin, Frank Jerrel, Marietta, GA, United States Di Luccio, Robert Cosmo, Alpharetta, GA, United States Everhart, Dennis Stein, Alpharetta, GA, United States Gadsby, Elizabeth Deibler, Marietta, GA, United States Mayberry, Pamela Jean, Roswell, GA, United States Gillberg-LaForce, Gunilla Elsa, Painted Post, NY, United States May, Wade Bolton, New Orleans, LA, United States Kimberly-Clark Worldwide, Inc., Neenah, WI, United States (U.S. Musil, David Charles, Appleton, WI, United States Rosch, III, Frank Andrew, Sherwood, WI, United States Shaw, Gordon Allen, Greenville, WI, United States Tyrrell, David John, Appleton, WI, United States Underhill, Diane Michele, Neenah, WI, United States Wright, Audra Stefanik, Woodstock, GA, United States Yahiaoui, Ali, Roswell, GA, United States Faulks, Michael John, Neenah, WI, United States Krzysik, Duane Gerard, Appleton, WI, United States Menard, Karen Marie, Neenah, WI, United States maintains the temperature and exhibits substantially reduced levels of hydration of the wearer's ***skin*** when in use which renders the ***skin*** less susceptible to the viability of microorganisms. The US 6316013 B1 20011113 US 2000-671446 20000927 (9) Division of Ser. No. US 1999-379431, filed on 23 Aug 1999 an absorbent body located between the backsheet and the topsheet. The absorbent body may include multiple zones of high air permeability. The absorbent article may also include a ventilation layer between the Primary Examiner: Page, Thurman K.; Assistant Examiner: Ghali, Isis Absorbent article which maintains or improves ***skin*** less susceptible to the viability of microorganisms. The absorbent article may further include lotion formulations and/or absorbent body and the backsheet and a surge management layer between the absorbent.body and the topsheet. The article exhibits improved air permeable topsheet positioned in facing relation with the backsheet; and An absorbent article includes a vapor permeable backsheet, a liquid 13 Drawing Figure(s); 11 Drawing Page(s) Hockersmith, Jeffrey Michael, Mill Creek, WA, United States 2001:202209 USPATFULL treatment compositions thereon for maintaining or improving exchange within the article during use. As a result, the article · · · skin · · · health

- ANSWER 9 OF 11 USPATFULL on STN
- 2001:167755 USPATFULL
- IN 11 AN 19 Absorbent article which maintains or improves ***ski Paul, Susan Carol, Alpharetta, GA, United States Akin, Frank Jerrel, Marietta, GA, United States Di Luccio, Robert Cosmo, Alpharetta, GA, United States ***skin***

health

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RLI
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EXNAM
LREP
CLMN
ECL LN.CNT 3321

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An absorbent article includes a vap B1 20011002 US 2000-671447 B1 20011002 Division of Ser. No. US 1999-379431, filed on 23 Aug 1999 Utility GRANTED Musil, David Charles, Appleton, WI, United States
Rosch, III, Frank Andrew, Sherwood, WI, United States
Shaw, Gordon Allen, Greenville, WI, United States
Tyrrell, David John, Appleton, WI, United States
Underhill, Diane Michael, Neanah, WI, United States
Hockersmith, Jeffrey Michael, Mill Creek, WA, United States
Gillberg-LaForce, Omilla Elsa, Painted Post, NY, United States
Gillberg-LaForce, Omilla Elsa, Painted Post, WI, United States
May, Wade Bolton, New Orleans, LA, United States
May, Wade Bolton, New Orleans, MI, United States
May, Wade Bolton, New Orleans, LA, United States
May, Wade Bolton, New Orleans, MI, United States Dudkowski, Alyssa Number of Claims: 36 Exemplary Claim: 1 Primary Examiner: Page, Thurman K.; Assistant Examiner: Ghali, Isis Everhart, Dennis Stein, Alpharetta, GA, United States Gadsby, Elizabeth Deibler, Marietta, GA, United States 13 Drawing Figure(s); 11 Drawing Page(s) Krzysik, Duane Gerard, Appleton, WI, United States Menard, Karen Marie, Neenah, WI, United States Faulks, Michael John, Neenah, WI, United States Yahiaoui, Ali, Roswell, GA, United States Wright, Audra Stefanik, Woodstock, Mayberry, Pamela Jean, Roswell, GA, United States GA, United States

DRWN

7 T & 5 ANSWER 10 OF 11 USPATFULL on STN 2001:55468 USPATFULL

absorbent body and the backsheet and a surge management layer between the absorbent body and the topsheet. The article exhibits improved air exchange within the article during use. As a result, the article maintains the temperature and exhibits substantially reduced levels of hydration of the wearer's "skin" when in use which renders the ""skin" less susceptible to the viability of microorganisms. The

treatment compositions thereon for maintaining or improving absorbent article may further include lotion formulations and/or permeable topsheet positioned in facing relation with the backsheet; and an absorbent body located between the backsheet and the topsheet. The absorbent body may include multiple zones of high air permeability. The absorbent article may also include a ventilation layer between the

An absorbent article includes a vapor permeable backsheet, a liquid

Absorbent article which maintains or improves Susan Carol, 310 Tanners Crossing, Alpharetta, ***skin*** GA, United States

Akin, Frank Jerrel, 560 Trailwood La., Marietta, GA, United

Everhart, Dennis Stein, 230 Hereford Rd., Alpharetta, GA, United States States Di Luccio, Robert Cosmo, 2350 Cogburn Ridge Rd., Alpharetta, GA, United

Gadsby, Elizabeth Deibler, 5338 Timber Ridge Rd., Marietta, GA, United

> PRAI
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> CLMN
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> DRWN
> LN. CNT
> AB 3247 Wright, Audra Stefanik, 4142 Country Manor Ct., Woodstock, GA, United States 30188 Number of Claims: 17
> Exemplary Claim: 1
> 13 Drawing Figure(s); 11 Drawing Page(s) US 1999-379431
> 19990823 (9)
> Continuation-in-part of Ser. No. US 1999-298314, filed on 23 Apr 1999
> Continuation-in-part of Ser. No. US 1998-139820, filed on 25 Aug 1998
> Continuation-in-part of Ser. No. US 1998-139824, filed on 25 Aug 1998, Rosch, III, Frank Andrew, W4823 Spring Hill Dr., Sherwood, WI, United States 54169 5491 Yahiaoui, Ali, 5040 Foxberry La., Roswell, GA, United States 30075 Faulks, Michael John, 2320 Fiesta Ct., Neenah, WI, United States 54956 Krzysik, Duane Gerard, 1112 E. Melrose Ave., Appleton, WI, United States Primary Examiner: Page, Thurman K.; Assistant Examiner: Tran, Curtin, Jeffrey B. now abandoned Continuation-in-part of Ser. No. US 1999-328681, filed 9 Jun 1999 Continuation-in-part of Ser. No. US 1999-343861, filed on States 14870 Gillberg-LaForce, Gunilla Elsa, 7 Pond View, Painted Post, NY, United Hockersmith, Jeffrey Michael, 14705 24th Ave. SE., Mill Creek, Underhill, Diane Michele, 726 Congress Pl., Neenah, WI, United States Tyrrell, David John, 415 S. Olde Oneida St., Apt. 318, Appleton, WI, United States 54911 Musil, David Charles, 3725 S. School Ave., Appleton, WI, United States Menard, Karen Marie, 528 E. Peckham St., Neenah, WI, United States An absorbent article includes a vapor permeable backsheet, a liquid permeable topsheet positioned in facing relation with the backsheet; an absorbent body located between the backsheet and the topsheet. The Granted Utility US 6217890 May, Wade Bolton, 5317 St. Charles, Apt. United States 54956 54956 Mayberry, Pamela Jean, 1035 Lyndhurst Way, Roswell, GA, United States hydration of the wearer's maintains the temperature and exhibits substantially reduced levels of hydration of the wearer's ***skin*** when in use which renders the absorbent body and the backsheet and a surge management layer batween the absorbent body and the topsheet. The article exhibits improved air absorbent body may include multiple zones of high air permeability. The absorbent article may also include a ventilation layer between the US 1999-141788P Aug 1999 Jun 1999 Continuation-in-part of Ser. No. US 1999-377294, filed on 19 absorbent article may further include lotion formulations and/or exchange within the article during use. As a result, the article Gordon Allen, W6253 Everglade Rd., Greenville, WI, United States 70115 less susceptible to the viability of microorganisms. The 98012 81 19990630 (60) 20010417 K, New Orleans, LA, United and

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